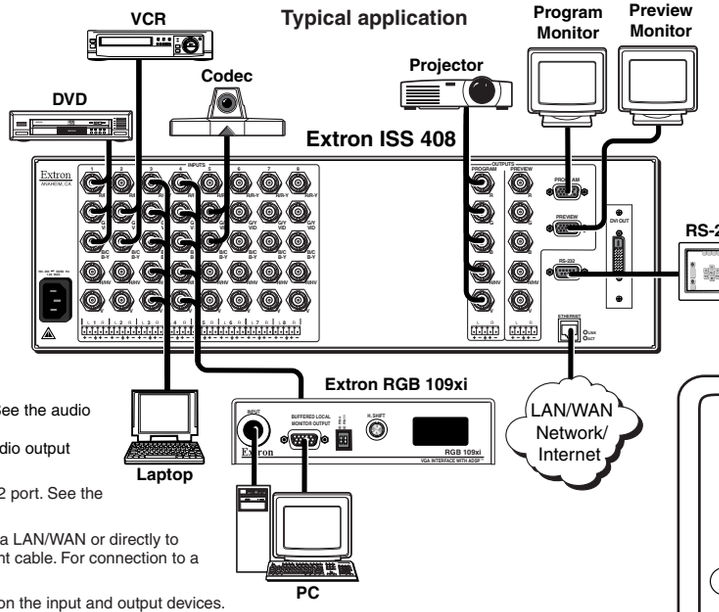
ISS 108/ISS 408 Integration Seamless Switcher

Installation and Operation

Installation —

1. Ensure power is off to the ISS and all other devices that will be connected to it. See the typical application diagram at right.
2. **If desired**, install the optional DVI output card. Refer to the ISS 108 & ISS 408 manual, #68-575-01, for details.
3. **If desired**, mount the ISS in a rack. **Otherwise**, stick the four rubber feet on the bottom of the ISS.
4. Connect up to 8 computer/RGB, component video, S-video, or composite video source devices to the ISS's BNC inputs. See the input and output BNC connections diagram below for wiring the various video formats.
5. Connect up to 8 stereo or mono sources to the ISS's captive screw audio inputs. See the audio input connections diagram below to properly wire the connectors.
6. Connect displays and/or other output devices to the ISS's preview and program BNC and 15HD outputs. See the RGBHV and RGBS examples on the input and output BNC connections diagram below for wiring outputs.
7. **If a DVI output board is installed**, connect a DVI or DFP (with a DVI-to-DFP adapter) compatible program monitor or display to the rear panel DVI connector.
8. Connect audio output devices, such as an audio amplifier or powered speakers. See the audio output connections diagram below to wire the connectors.
   CAUTION Incorrect audio connector wiring can damage the switcher. See the audio output connections diagram below.
9. **If desired**, connect a PC or third-party control system to the ISS's Remote RS-232 port. See the remote port diagram below.
10. **If desired**, plug an RJ-45 connector into the Ethernet port to connect the ISS to a LAN/WAN or directly to another computer. For a network connection, wire the interface cable as a straight cable. For connection to a computer or control system, wire the interface cable as a crossover cable.
11. Plug the ISS and input and output devices into a grounded AC source, and turn on the input and output devices.



Operation —

1. Select video and/or audio to switch by pressing the Video/Audio button as necessary to light the green Video LED and/or red Audio LED.
2. Press an input button to select a video and/or audio input for the preview output. The preview output's input selection is indicated by the flashing green (for video) and/or red (for audio) Input LED(s)
3. Press either the Cut or Dissolve button to switch the preview output to the program output. Cut makes an immediate seamless switch. Dissolve masks the seamless switch with a dissolve effect of a user-assignable duration. The program output's input selection is indicated by the solid green (for video) and/or red (for audio) Input LED(s).
4. Use the LCD menu screens (see Main Menus and Operations at right), SIS commands, or the Windows program to configure the ISS inputs, output, and dissolve speed. Refer to the ISS 108 & ISS 408 manual, #68-575-01, for details.

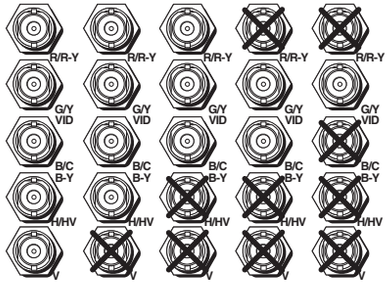
Picture Adjustments —

Make picture adjustments (**color [RGBcS, component, S-video, and composite video only] / tint [NTSC S-video and composite video only], contrast / brightness, size, centering,** and **filter**) to the selected input by pressing the desired Picture Adjustments button, once for the preview output or twice for the program output, then rotating the Adjust ◀▶ knob to adjust the setting on the left side of the LCD screen or the Adjust ▲▼ knob to adjust the setting on the right side of the LCD screen.

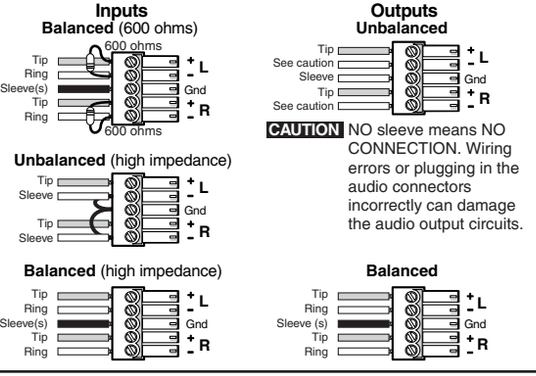
Auto Imaging —

Execute the auto imaging feature for a specific input by pressing and holding the appropriate input button until the LCD displays the message Reset Input #*n*, releasing the input button, and then pressing and releasing the input button again.

Input and output BNC connections

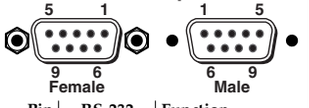


Audio Connections



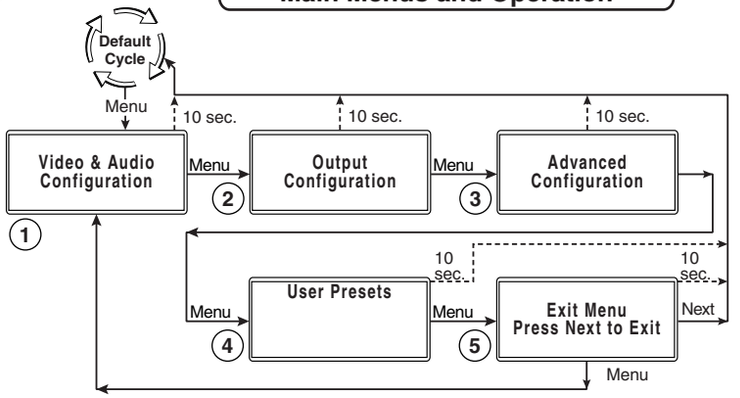
CAUTION NO sleeve means NO CONNECTION. Wiring errors or plugging in the audio connectors incorrectly can damage the audio output circuits.

Remote port



Pin	RS-232	Function
1	—	Not used
2	TX	Transmit data
3	RX	Receive data
4	—	Not used
5	Gnd	Signal ground
6	—	Not used
7	—	Not used
8	—	Not used
9	—	Not used

Main Menus and Operation



Use the MENU and NEXT buttons to navigate through the menu system. Use the Adjust knobs to make configuration changes.

NOTE If you press the Menu button while a submenu is active, the next main menu will become active. For example, the menu will change from the Input Configuration menu or submenus to the Output Configuration main menu.

NOTE To return to the default screens, let the ISS remain idle for 10 seconds until the selected screen times out, or press the Menu button until the Exit Menu appears, then press the Next button.

(1) **Video & Audio Configuration —** Select an input. The Adjust ◀▶ knob selects the desired input video format (RGB, RGBcvS, YUVi, YUVp, Betacam 50, Betacam 60, HDTV, S-video, or composite video). The Adjust ▲▼ knob adjusts the input audio level in the range -15dB to +9dB. The default for each input is RGB video and 0dB audio level.

(2) **Output configuration —**
- **Output resolution and refresh rate —** The Adjust ◀▶ knob selects the resolution. The Adjust ▲▼ knob selects the refresh rate. "**Lock**" indicates Accu-RATE Frame Lock™. The default is 1024 x 768 at 60 Hz.
- **Output sync and polarity —** The Adjust ◀▶ knob selects the sync format: RGBHV or RGBS. The Adjust ▲▼ knob selects the polarity of the H and V output. The default is RGBHV and negative polarity.

(3) **Advanced Configuration —**
- **Dissolve speed —** Either Adjust knob selects the duration of the dissolve effect when switching the preview output to the program output. The duration is from 0 seconds to 5 seconds in 0.1 second steps. The default is 1.0 seconds.
- **Test Pattern —** Select a test pattern: Color Bars, cross hatch, 4 x 4 cross hatch, gray scale, crop, alternating pixels, aspect ratio 1.78/1.85/2.35, or ramp. The Adjust ◀▶ knob selects a test pattern. The Adjust ▲▼ knob selects the program and/or preview output to receive the test pattern. The default is Off.
- **Blue mode and edge smoothing —** The Adjust ◀▶ knob selects (< >) blue only mode On or Off. The Adjust ▲▼ knob selects the edge smoothing feature On or Off. Edge smoothing minimizes pixel differences to soften the edges of a picture.
- **Preview blanking and program blanking (two screens) —** The Adjust ◀▶ knob selects the number of top lines to blank. The Adjust ▲▼ knob selects the number of bottom lines. Blanking masks noise on the top and bottom of a scaled image that can result from processes such as captioning or tapehead switching.
- **RGB Delay —** Either Adjust knob sets the RGB delay for the preview output input selection from 0 seconds to 5 seconds in 0.1 second steps. The default is 0.2 seconds.
- **Auto Imaging and Auto Memories —** The Adjust ◀▶ knob toggles auto imaging on and off for all input selections. Auto imaging automatically sizes and centers each selected input. The Adjust ▲▼ knob toggles the auto memories feature on and off for all input selections. Auto memories save and recall centering, sizing, and filtering information, based on the input frequency.
- **Enhanced Mode —** Either Adjust knob toggles enhanced mode On and Off. Enhanced mode is an automatic gain control for S-video and composite video inputs.
- **Pixel Phase —** The Adjust ◀▶ knob adjusts the pixel phase for the input connected to the program output from 0 to 31. The Adjust ▲▼ knob adjusts the input connected to the preview output. Pixel phase is the timing of the scaler's sampling. The optimum pixel phase results in a brighter output. The default is 16.
- **Preview Switch Mode —** Either Adjust knob selects Stay or Swap. Preview switch mode determines how the preview output responds to the cut or dissolve operation.
  - **Stay mode** — The preview output signal is applied to the program output and continues to be applied to the preview output (until another input is selected).
  - **Swap mode** — The preview and program outputs are swapped.
- **PAL Film Mode —** Either Adjust knob selects On or Off for the selected input. The PAL film mode (2:2 pulldown detection) should be used for a video source that is PAL video that originated from film. Select other inputs as necessary to configure.
- **Reset —** Resets the ISS to its factory default values. While the Reset submenu is active, press and hold the Black/Mute button until the LCD displays the reset message.

(4) **User Presets —** Three user presets per input are saved and erased from the Save Preset or Erase Preset menu. Either knob selects (< >) among the presets. The Next button saves or erases the preset. N/A exits without saving or erasing. (Recall user presets by repeatedly pressing the applicable Input button.)

(5) **Exit —** Press the Next button to return to the default display cycle or press the Menu button to return to the main menu system.

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